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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/756,390	01/14/2004	Joong-Hun Kim	1568.1088	1878

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EXAMINER

PARSONS, THOMAS H

ART UNIT PAPER NUMBER

1745

DATE MAILED: 03/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/756,390

Applicant(s)

KIM ET AL.

Examiner

Thomas H. Parsons

Art Unit

1745

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 1/14/2004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicants' Prior Art Figures 1-2 in view of McVeigh, Jr. et al. (4,707,421).

Claim 1: Applicants in Prior Art Figures 1-2 disclose a battery unit (10) comprising:

an electrode unit (11) comprising:

a positive electrode plate,

a separator, and a

negative electrode plate,

wherein the positive electrode plate, the separator, and the negative electrode plate are disposed in sequential order;

electrode leads (13, 14) extending from each of the positive and negative electrode plates of the electrode unit; and

a finishing tape (insulating member 21) provided on an outermost surface of the electrode unit (paragraphs [0004]-[0014]).

The Applicants' Prior Art Figures 1 and 2 do not disclose a finishing tape comprising an adhesive layer having a low adhesive strength, and a polymer film layer coated with the adhesive

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layer, wherein the finishing tape is detachably attached to the electrode unit so as to detach in response to the electrode unit deforming.

McVeigh, Jr. et al. in Figure 1 discloses a finishing tape comprising an adhesive layer having a low adhesive strength, and a polymer film layer coated with the adhesive layer, wherein the finishing tape is detachably attached to the electrode unit so as to detach in response to the electrode unit deforming (col. 3: 20-33 and col. 3: 67-col. 4: 4).

Because McVeigh, Jr. et al. discloses an adhesive layer (i.e. acrylic or acryl-based) that is chemically the same as that instantly disclosed, it obviously would have provided a low adhesive strength. Further, because McVeigh, Jr. et al. disclose a polymer film layer coated with the adhesive layer that is chemically the same as that instantly disclosed, it obviously would provided a finishing tape that is detachably attached to the electrode unit so as to detach in response to the electrode unit deforming.

Therefore, it would have been obvious to one of ordinary skill in the art at the time he invention was made to have substituted the tape with the film of McVeigh, Jr. et al. because McVeigh, Jr. teach a film that would have eliminated or minimized problems associated with voltage reversal and provided a battery with maximum volumetric capacity thereby improving the overall life and performance of the battery.

Claim 2: The Applicants' Prior Art Figures 1-2 and McVeigh, Jr. et al.'s Figure 1 disclose an electrode unit wound in a jelly-roll type structure.

Claim 3: The rejection is as set forth above in claim 1 wherein further McVeigh, Jr. et al. discloses a polymer film layer comprises polyethylene.

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Claim 4: Because McVeigh, Jr. et al. discloses an adhesive layer (i.e. acrylic or acryl-based) that is chemically the same as that instantly disclosed, it obvious would have provided an adhesive strength of 500 g/25 mm or less (col. 3: 20-33 and col. 3: 67-col. 4: 4).

Claim 5: The rejection is as set forth above in claim 1 wherein further McVeigh, Jr. et al. discloses an adhesive layer comprises an acryl-based adhesive (col. 3: 30).

Claim 6: The rejection of claim 6 is as set forth above in claim 1 wherein further the Applicants in Prior Art Figure 1 disclose a (12) case providing a space (12a) in which the electrode unit is accommodated, and having a sealing surface (12b) thermally fused along the periphery of the space.

Claim 7: The rejection of claim 7 is as set forth above in claim 2.

Claim 8: The rejection of claim 8 is as set forth above in claim 3.

Claim 9: The rejection of claim 9 is as set forth above in claim 5.

Claim 10: The rejection of claim 10 is as set forth above in claim 4. Further, because McVeigh, Jr. et al. discloses an adhesive layer (i.e. acrylic or acryl-based) that is chemically the same as that instantly disclosed, it obvious would have provided an adhesive layer that is temporarily separated from the outermost surface of the electrode unit in response to the electrode unit deforming, and is attached again to the outermost surface of the electrode unit in response to the electrode unit returning to an original shape of the electrode unit.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas H. Parsons whose telephone number is (571) 272-1290. The examiner can normally be reached on M-F (7:00-4:30) First Friday Off.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pat Ryan can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


PATRICK JOSEPH RYAN
SUPERVISORY PATENT EXAMINER

Thomas H Parsons
Examiner
Art Unit 1745
